

AbstractBinding assay employing labelled reagent

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5 A binding assay process for an analyte, using a capture
binding agent with binding sites specific for the analyte and a
developing binding material capable of binding with the bound
analyte or with the binding sites on the capture binding agent
either occupied by the bound analyte or the remaining unoccupied
10 binding sites, employs the capture binding agent in an amount
such that only an insignificant fraction of the sample analyte
becomes bound to the capture binding agent, which is preferably
provided at high surface density on microspots. A label is used
in relation to the developing binding material and is provided
by microspheres which are less than 5 μm and carry a marker
preferably fluorescent dye molecules. To determine the
15 concentration of sample analyte, the signal strength, which
represents the fractional occupancy of the binding sites on the
capture binding agent by the analyte, is compared with a dose-
response curve computed from standard samples. To detect an
analyte comprising a single-stranded DNA sequence the analyte
20 presence is detected by the existence of a signal. A kit for the
process comprises the capture binding agent immobilised on a
solid support, a developing reagent with the developing binding
material attached to the microspheres and, for quantitative
assays, standards of known amounts of concentrations of the
25 analyte of interest.